CLAIMS

What is claimed is:

1.   A method comprising:

delivering a first stimulus to a heart chamber and acquiring an intracardiac electrocardiogram that includes an evoked response;

delivering a second stimulus to the heart that does not capture the heart, and acquiring an intracardiac electrocardiogram that includes an afterpotential;

repeating the delivering of a first stimulus and the acquiring an intracardiac electrocardiogram that includes an evoked response one or more times; and

generating an ensemble average based on the intracardiac electrocardiograms that include evoked responses and that include an afterpotential.

2.   The method of claim 1 wherein the delivering delivers an atrial stimulus and the acquiring acquires an atrial intracardiac electrocardiogram that includes an atrial evoked response.

3.   The method of claim 1 wherein the delivering delivers a ventricular stimulus and the acquiring acquires a ventricular intracardiac electrocardiogram that includes a ventricular evoked response.

4.   The method of claim 1, wherein the generating comprises subtracting the intracardiac electrocardiogram that includes electrode potential artifact and no evoked response from one or more of the intracardiac electrocardiogram that include an evoked response.

5.   A method comprising:

delivering a stimulus to a heart that does not result in capture;

acquiring an intracardiac electrocardiogram responsive to the stimulus that includes an afterpotential;

repeating the delivering and the acquiring one or more times; and

performing an ensemble average of the intracardiac electrocardiograms.

6.   The method of claim 5 wherein the delivering delivers an atrial stimulus and the acquiring acquires an atrial intracardiac electrocardiogram.

7.   The method of claim 5 wherein the repeating repeats less than approximately 10 times.

8.   The method of claim 5 wherein the acquiring follows a blanking period.

9.   The method of claim 5 wherein the acquiring occurs within a time window.

10.   The method of claim 5 further comprising excluding one or more of the intracardiac electrocardiograms from the performing on the basis of a criterion or criteria.

11.   The method of claim 5 further comprising fitting the ensemble average to a model.

12.   The method of claim 11 wherein the model includes an exponential.

13. The method of claim 5 further comprising changing power of the intracardiac stimulus.

14. The method of claim 13 wherein the changing follows the performing and further comprises repeating the delivering, the acquiring, the repeating and the performing.

15. The method of claim 13 further comprising analyzing one or more ensemble averages with respect to power of the intracardiac stimulus.

16. A method comprising:

delivering a first stimulus to a heart chamber that results in capture of the heart tissue, and acquiring an intracardiac electrocardiogram that includes an evoked response;

delivering a subthreshold stimulus to the heart, and acquiring an intracardiac electrocardiogram that includes an afterpotential;

repeating the delivering of a first stimulus and the acquiring an intracardiac electrocardiogram that includes an evoked response one or more times; and

generating an ensemble average based on the intracardiac electrocardiograms that include evoked responses and that include an afterpotential.